

CALIFORNIA ENVIRONMENTAL QUALITY ACT INITIAL STUDY

The Department of Toxic Substances Control (DTSC) has completed the following document for this project in accordance with the California Environmental Quality Act (CEQA) [Pub. Resources Code, div. 13, § 21000 et seq] and accompanying Guidelines [Cal. Code Regs., tit. 14, § 15000 et seq].

PROJECT TITLE: Final Closure Plan for Building 419 Hazardous Waste Treatment Facility		CALSTARS CODING: 25045/200277-33/72
PROJECT ADDRESS: 7000 East Avenue	CITY: Livermore	COUNTY: Alameda
PROJECT SPONSOR: Lawrence Livermore National Laboratory	CONTACT: Ms. Vicki Salvo	PHONE: (925) 423-5432

APPROVAL ACTION UNDER CONSIDERATION BY DTSC:

- | | | | |
|--|---|--|--|
| <input type="checkbox"/> Initial Permit Issuance | <input type="checkbox"/> Permit Renewal | <input type="checkbox"/> Permit Modification | <input checked="" type="checkbox"/> Closure Plan |
| <input type="checkbox"/> Removal Action Workplan | <input type="checkbox"/> Remedial Action Plan | <input type="checkbox"/> Interim Removal | <input type="checkbox"/> Regulations |
| <input type="checkbox"/> Other (specify): | | | |

STATUTORY AUTHORITY:

- ☒ California H&SC, Chap. 6.5 ☐ California H&SC, Chap. 6.8 ☐ Other (specify):

DTSC PROGRAM/ ADDRESS: BERP, 8800 Cal Center Drive, Sacramento, CA 95826	CONTACT: Mr. Ryan Batty	PHONE: (916) 255-6699
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PROJECT DESCRIPTION:

The Department of Toxic Substances Control (DTSC) is considering approval of a closure plan for the Building 419 Hazardous Waste Treatment Facility (hereinafter referred to as "B-419 Facility" or "Project Site") at the Lawrence Livermore National Laboratory (hereinafter referred to as "LLNL Site"), U.S. Environmental Protection Agency (EPA) identification number CA2890012584. The B-419 Facility is a Resource Conservation and Recovery Act (RCRA) interim status unit. The B-419 Facility will be closed in accordance with the requirements of California Code of Regulations, title 22, Division 4.5, Chapter 15, Article 7. The plan titled "Final Closure Plan for Building 419" and dated March, 2009 (Closure Plan), along with the DTSC technical completeness determination letter, dated June 3, 2009, are incorporated into this Initial Study by reference.

Location:

The LLNL Main Site is located at the southeastern end of the Livermore Valley, eastern Alameda County, in the City of Livermore. The B-419 Facility is located on Avenue F in the southeastern quadrant of the LLNL Site. Refer to the maps in Attachments B and C.

Building 419 (B-419) is located approximately 300 feet from the East Avenue LLNL Site boundary. The nearest school to the Project Site is Livermore Valley Unified School District: Arroyo Seco, located over one mile away. The nearest residence to the Project Site is located approximately 4,000 feet away.

Background:

B-419 is a 7,860-square-foot concrete block structure. The center section of the building includes an entry/lobby area and has a second floor that was used as office space. The north and south ends of the building are single story and consist of open rooms. Hazardous waste treatment occurred in rooms 124, 155, and 167. The B-419 Facility includes the physical structure of B-419, the below grade vault that formerly held two 500-gallon underground storage tanks, 419-R1U4 and 419-R1U5, and the yard area north of the building. The layout of the B-419 Facility is shown in Attachment D. The B-419 Facility was used to treat hazardous and mixed waste (mixed waste is a term used to describe comingled hazardous and radioactive waste).

LLNL is owned by the U.S. Department of Energy (DOE) and is jointly operated by DOE and Lawrence Livermore National Security, LLC (LLNS). The Laboratory was established in 1952 to conduct research on nuclear

weapons. Other major programs have since been added, including magnetic fusion energy, laser fusion and laser isotope separation, biomedical and environmental sciences, and applied energy technology.

Prior to 1942, the LLNL Main Site was part of Wagoner Ranch and was used for grain production and cattle grazing. In 1942, the U.S. Navy purchased the LLNL Site for use as the Livermore Naval Air Station. The Department of Health Services, predecessor to DTSC, authorized interim operational status of the B-419 Facility in 1983.

Between 1975 and 1989, LLNL used B-419 for equipment decontamination and hazardous and mixed waste treatment activities e.g. size reduction and solidification. Waste treatment activities were temporarily discontinued during 1989 pending a seismic evaluation of the building to determine if it met the Uniform Building Code seismic guidelines. In 1991, an evaluation of the seismic data determined that B-419 could not meet those guidelines; therefore, size reduction and solidification activities were not resumed.

Building Investigation History:

A closure plan for the B-419 Facility was initially submitted to DTSC in March of 1992. The plan included two phases: 1) the decontamination and removal of equipment used for waste treatment; and 2) the structural closure including the building, walk-in fume hoods, and associated ducting. The plan was a partial closure plan and not officially approved by DTSC. The equipment closure activities by LLNL commenced on June 21, 1995, and were completed in December, 1996. The structural partial closure activities began May 9, 1997, and were completed in February, 1999. For further details on historical partial closure activities please refer to reference [1].

Other closure activities that occurred included the removal of two (2) underground storage tanks from the vault to the west of B-419 and the associated piping systems in room 167. This work was completed under the supervision of the Alameda County Department of Environmental Health. The closure activities were conducted in two phases; 1) closure of underground storage tanks 419-R1U4 and 419-R1U5 and associated piping, and 2) closure of under-floor and underground piping systems both inside and outside of B-419. Excavation activities in and around B-419 disclosed contaminants in soil including mercury and Volatile Organic Compounds (VOCs), and the closure plans were never completed. Some underground and under-floor pipes associated with the underground storage tanks, 419-R1U4/5, were removed and some have been left intact; (refer to Appendix A, Figure A-1 of the Closure Plan for further detail on remaining piping).

Because radioactive materials were managed in the B-419 Facility, it is possible that parts of the building may be contaminated with low levels of radionuclides i.e. levels at or slightly exceeding background levels. Based on the knowledge of the waste operations historically conducted, results from sampling efforts, and the desire to move forward in the most efficient manner, LLNL has decided to characterize the debris resulting from the demolition of the entire B-419 structure as low level radioactive waste (LLW). Debris from the demolition of select areas of the building will be classified as mixed low level radioactive waste (MLLW) because hazardous constituents, such as mercury, are suspected to be present. No radioactive or mixed waste is currently stored at the B-419 Facility that requires removal as part of the closure. LLNL will monitor radioactivity exposure for workers during the closure - limited, if any, radioactivity exposure is foreseen.

Project Activities:

A description of the major project activities, in the order that they are likely to occur, is given below. Workers implementing the Closure Plan will be required to follow LLNL's general health and safety requirements as documented in the Site Safety and Health Plan found as Appendix B to Volume 1 of the Closure Plan. In addition, the contractor(s) retained by LLNL to implement the closure plan will be required to prepare a contractor specific health and safety plan for their activities. DTSC representatives will monitor the closure activities described below to verify that the activities are being conducted in accordance with the approved Closure Plan. An independent, California-registered, professional engineer will also monitor closure activities.

1. Waste Characterization: For the purposes of this discussion the building structure includes all above grade improvements associated with the B-419 Facility excluding the concrete slab foundation. LLNL will collect additional samples from the non-RCRA portions of the building structure for waste characterization purposes; the non-RCRA portions of the building structure include all areas excluding rooms 124, 155 and 167. The waste characterization samples will be used to characterize the non-RCRA portions of the building as either LLW or MLLW. Based on existing sample data, LLNL has characterized the debris to be generated from the RCRA portions of the building structure; the debris from room 124 will be managed as LLW and the debris from rooms 155 and 167 will be managed as MLLW.
2. Asbestos Removal: A professional asbestos removal contractor will identify and remove Asbestos

Containing Materials (ACMs) from the building. Sampling results from task one (1) will be used to help determine where ACMs reside in the building. A permit for asbestos removal will be obtained prior to any work commencing in accordance with Bay Area Air Quality Management District (BAAQMD) regulation 11, rule 2.

3. Dismantling: LLNL will dismantle as much of the structure as possible prior to bringing in heavy equipment to physically demolish the building shell e.g. removal of the ceiling cranes. Language to this effect was included in the Closure Plan in an effort to limit the potential for fugitive dust generation during the demolition.
4. Structure Demolition and Disposal: Demolition of the B-419 structure will involve physically knocking down the structure and then size reducing the debris so that it can be safely transported off the LLNL Site. The debris generated will be carefully segregated into LLW and MLLW during the dismantling and demolition process. The debris will be shipped off the LLNL Site in U.S. Department of Transportation (DOT) approved containers. A list of these containers is located in Table 5 (pages 40 & 41) of the Closure Plan. Demolition of the building structure is anticipated to generate approximately 1,114 cubic yards of debris requiring 52 truck trips. The LLW and MLLW will be transported to an appropriately licensed facility outside of California for disposal. A list of possible destinations for the waste generated during the closure is located in section 4.9, page 12, of the Closure Plan. Additional information on the most direct route to the likely disposal location (i.e. the Energy Solutions facility in Utah) is located in Attachment F.

All reasonable steps will be taken to minimize the generation of fugitive dust during the demolition process. In preparation for demolition, LLNL will contact and obtain the necessary authorizations from BAAQMD. Such authorization will include completion of the district demolition notification form. Also, LLNL will take steps to identify and implement the requirements of applicable district rules and regulations including but not limited to regulation 11, rule 2 relating to asbestos demolition.

Prior to commencing demolition, LLNL will utilize LLNL Site meteorological equipment to monitor environmental conditions. Specifically, LLNL will monitor wind speed and direction to ensure that conditions are suitable to minimize emissions to the extent practicable and the potential impact of any emissions.

During demolition, LLNL will utilize a combination of work practices and engineering controls to limit emissions. Specifically, LLNL will dismantle the structure to the extent feasible and will utilize spray misting to control fugitive dust. Asbestos containing materials will be removed from the building by a licensed contractor prior to demolition. Also, selective decontamination of "hot spots" (i.e. areas of known or suspected contamination) may occur prior to demolition to reduce the quantity of MLLW generated. Decontamination may include any of the methods described in section 4.6, pages 10 & 11, of the Closure Plan. The building debris will be managed in covered stockpiles or closed containers prior to transportation off the LLNL Site to avoid secondary emissions after demolition is complete.

The effectiveness of work practices and engineering controls will be evaluated using the particle analyzer described in section 4.6, page 11, of the Closure Plan. The particle analyzer will be used in both a qualitative and a quantitative fashion as follows:

- When operating in a qualitative fashion the particle analyzer will be used to determine if changes in operations (e.g. the manner of demolition) or environmental conditions (e.g. wind direction or velocity) affect rates of emission. If levels of emissions increase LLNL will alter work practices and/or engineering controls or stop work altogether until environmental conditions improve. When operated in this mode the particle analyzer will be used to ensure that emissions are as low as possible irrespective of the allowable action level.
- When operating in a quantitative fashion the particle analyzer will be used to determine concentrations of particulate matter downwind from the Project Site. The levels of particulate matter recorded will be compared to an action level developed during preparation of the contractor's health and safety plan.

When developing an action level for fugitive dust emissions LLNL will consider local, state and federal guidance. Also, there may be situations when dust is being generated and leaving the Project Site and the monitoring equipment does not measure elevated levels at or above the action level. In this circumstance supervising staff will be guided by visual observations.

5. Foundation, Vault and Soil Sampling: After the building structure has been demolished and removed, bulk Concrete, Asphalt and Soil (CAS) samples of the concrete slab foundation, vault, and sub-surface soils will be collected. In the case of the concrete slab foundation, the samples will be used to characterize the waste stream for disposal purposes as either LLW or MLLW. Soil samples will be used to characterize the sub-surface and determine what, if any, remediation is required to achieve clean closure. The proposed sample borehole locations are depicted on Figure A-2 of Appendix A of the Closure Plan. The CAS sampling will consist of a concrete sample from the building foundation or vault (where applicable), a soil sample at the soil-concrete interface (where applicable) and soil samples at incremental depths of 2, 5, 10, and 15 feet below ground surface. In addition, two deep boreholes are planned (identified as locations 40 & 41) with the profile as described previously and additional soil sampling at 5 foot intervals to first encountered groundwater where a grab groundwater sample will also be collected. The soil and groundwater results from boreholes 40 and 41 will be used to determine if soil contamination resulting from the operation of the B-419 Facility has contributed to regional groundwater contamination at the LLNL Site.

Background soil samples will be collected from the areas of the LLNL Site depicted on Figure A-3 of Appendix A of the Closure Plan. The background sample dataset will be used to determine, using statistical methods, whether operation of the B-419 Facility has led to contamination of the sub-surface that warrants remediation to achieve clean closure. The unrestricted clean closure goal for organics at the Project Site will be a residential human health risk of 1×10^{-6} or less (that is, one in one million elevated cancer risk) and a hazard index of less than 1.0. The unrestricted clean closure goal for Title 22 metals at the Project Site will be background or cumulative residential human health risk of 1×10^{-6} and a hazardous index of less than 1.0.

6. Foundation Demolition: The concrete slab foundation will be demolished and the debris will be disposed of in accordance with the characterization made using the CAS samples. The volume of waste generated from demolition of the concrete slab foundation is included in the estimate of 1,114 cubic yards of debris.
7. Vault Demolition: The below grade tank vault will be demolished and the debris will be disposed of as MLLW. The volume of waste generated from demolition of the concrete slab foundation is included in the estimate of 1,114 cubic yards of debris. The vault will be backfilled to level grade with certified clean fill.
8. Underground Piping Removal: The remaining piping from below the building foundation will be removed. Soil surrounding the piping will be excavated and removed as appropriate based on the results of CAS samples.
9. Excavation: The Closure Plan includes provision, as a contingency, for the removal of approximately 50 cubic yards of soil in addition to the soil removed along with the underground piping. If the CAS samples disclose contamination requiring excavation and disposal of significantly more than 50 cubic yards of soil, then a closure plan amendment will be prepared.
10. Reporting: LLNL will document closure activities and the results of CAS samples in a closure report to be submitted to DTSC. LLNL will perform a risk assessment, as appropriate, if soil and/or groundwater contamination is found. The closure report will include a determination whether implementation of the Closure Plan supports clean closure of the B-419 Facility or not.

Project activities will be overseen by an independent, California-registered professional engineer. The goal of the Closure Plan is to clean close the B-419 Facility. If LLNL cannot clean close the Project Site, then a Post-closure plan will be prepared. If deep soil or groundwater contamination is found that can be linked to operation of the B-419 Facility, then LLNL may elect to recommend transfer of the oversight of this aspect of the closure to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanup program. In order to make such a recommendation, LLNL must demonstrate that the level of cleanup under the CERCLA cleanup program will be substantially equivalent to RCRA requirements.

Any Project Site actions subsequent to this Closure Plan are subject to DTSC's approval and will undergo a corresponding CEQA analysis.

The schedule that has been developed for the project includes a 21-month implementation time from the date that the Closure Plan is approved. The nature of the closure activities are likely to result in periods within the 21 months of significant activity (e.g. during the demolition phase) and periods of relative inactivity, e.g., when

waiting on CAS sample results. The project is anticipated to commence in the summer of 2009.

ENVIRONMENTAL IMPACT ANALYSIS:

1. Aesthetics

Project Activities Likely to Create an Impact:

The following activities have the potential to impact aesthetics:

- Building demolition and removal,
- Underground tank vault demolition and removal,
- Excavation and removal of contaminated soil.

Description of Baseline Environmental Conditions:

B-419 is located within the southeast quadrant of the 823-acre LLNL Site in an area of the laboratory with a focus on industrial support operations. B-419 is not visible from outside the LLNL Site. Following successful completion of the project, the building structure will be demolished. B-419 is currently vacant and has not been utilized since approximately 1989.

Analysis as to whether or not project activities would:

a. Have a substantial adverse effect on a scenic vista.

Impact Analysis:

The Project Site is located inside of the LLNL facility in an area that is a large industrial complex. The land is largely flat, and it is unlikely that any work could be visible outside the secured lab compound. Property uses off the LLNL Site to the south, the nearest property line, are industrial and agricultural with some low density residential uses. No designated scenic vistas or scenic highways overlook the Project Site.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings and historic buildings within a state scenic highway.

Impact Analysis:

The project will not damage any scenic resources and will not result in removal of any trees or other landscaping. B-419 was constructed in circa 1940 when the Project Site was part of the Livermore Naval Air Station. B-419, which was formerly known as Building 125, was initially used for aircraft maintenance and is depicted in historical photographs in proximity to an aircraft hanger [18]. The building has not been identified as a structure of historical significance [9].

See section 5 of this initial study titled "Cultural Resources" for discussion on the evaluation of the historical significance of B-419.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

c. Substantially degrade the existing visual character or quality of the site and its surroundings.

Impact Analysis:

As stated, there are no visual resources to degrade and the building is not visible from offsite. Removal of the vacant structure will improve the visual character of the area.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Impact Analysis:

Upon completion of the project, LLNL have expressed a preference to use the site for additional vehicle parking.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 9, 10, 18, 14

2. Agricultural Resources

Project Activities Likely to Create an Impact:

The following activities have the potential to impact agricultural resources:

- None.

Description of Baseline Environmental Conditions:

The Project Site is located within the limits of the 823-acre LLNL Site. The LLNL Site is approximately 80% developed; the undeveloped land along the north and west sides of the facility is not used for agricultural purposes. There are no agricultural resources or operations in the immediate vicinity of the Project Site.

Analysis as to whether or not project activities would:

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

Impact Analysis:

The proposed project will occur entirely within the existing LLNL property which is not designated as prime farmland.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Conflict with existing zoning or agriculture use, or Williamson Act contract.

Impact Analysis:

The project consists of the removal of previously authorized structures. As a federal government property, LLNL is outside the jurisdiction of local planning agencies. There are no agricultural resources, operations, or lands enrolled under the Williamson Act in the immediate vicinity of the Project Site. The B-419 Facility area will remain in the LLNL lab complex and no change in land use is proposed.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural uses.

Impact Analysis:

No new lands will be acquired for the completion of the proposed project. There are no agricultural resources or operations in the vicinity of the Project Site.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 8, 10, 14

3. Air Quality

Project Activities Likely to Create an Impact:

The following activities have the potential to impact air quality:

- Asbestos removal and abatement,
- Building demolition and removal,
- Soil sampling,
- Possible soil excavation and removal,
- Transportation of building debris and soil to the point of disposal,
- Increased vehicular traffic.

For additional information on the demolition of the building structure please refer to the Project Description section of this Initial Study.

Description of Baseline Environmental Conditions:

The Project Site is located within the San Francisco Bay Area Air Basin, which encompasses a nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin and Napa Counties, and the southern portions of Solano and Sonoma Counties. The agency responsible for monitoring and enforcement of air quality standards and the development of air quality plans in the project area is the Bay Area Air Quality Management District (BAAQMD).

The federal Clean Air Act and the California Clean Air Act authorize the regulation of air quality. National Ambient Air Quality Standards have been established for what are known as “criteria” pollutants and the state of California has established more stringent standards for these pollutants. The criteria pollutants are nitrogen dioxide, carbon monoxide, sulfur dioxide, ozone, particulate matter, and lead. Air basins such as the San Francisco Bay Area Air Basin are designated either “attainment” or “non-attainment” for these criteria pollutants, according to whether they meet or do not meet the federal and state standards. The following table summarizes regional air quality for the project area:

Table 1. Air Quality Summary for the San Francisco Bay Area Air Basin.

Pollutant	California Standards	National Standards
Ozone	Nonattainment	Nonattainment
Carbon Monoxide	Attainment	Attainment
Nitrogen Dioxide	Attainment	Attainment
Sulfur Dioxide	Attainment	Attainment
Particulate Matter (PM10)	Nonattainment	Unclassified
Particulate Matter – Fine (PM2.5)	Nonattainment	Partial Attainment
Sulfates	Attainment	--
Lead	Attainment	Attainment

Air quality is measured locally at the Rincon Avenue air monitoring station in the City of Livermore. Local air quality generally mirrors air quality for the Basin.

Analysis as to whether or not project activities would:

- a. Conflict with or obstruct implementation of the applicable air quality plan.

Impact Analysis:

The BAAQMD has developed guidelines for assessing the air quality impacts of projects subject to CEQA [5]. These guidelines provide thresholds of significance for criteria pollutants, toxic air emissions, and odors for both the construction and operational phases of a proposed project. In addition, the environmental impact of LLNL has been studied extensively, most recently as documented in a Federal Environmental Impact Statement (EIS) dated March 2005. An emissions estimate calculation was performed using AQMD guidance and the results are documented in Attachment E. The calculated project emissions are below significance criteria published by AQMD. Therefore, even though the project may contribute emissions of constituents for which the Basin is in nonattainment status the contribution is not considered significant.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

Impact Analysis:

The project will not result in violation of any air quality standards. As discussed more fully in the introduction of the initial study, air monitoring will be performed to ensure that emissions from demolition of the building structure are minimized.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- c. Result in cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

Impact Analysis:

The completion of the project will result in the emission of ozone precursors which may lead to the formation of ozone and will likely result in the emission of some particulate matter. The emission of ozone precursors from vehicular traffic is largely unavoidable. The project will not require a significant increase in vehicular traffic, and the increase will be temporary (21-month project duration). Particulate emissions will be minimized through the use of engineering controls such as spray misting. The effectiveness of the controls will be evaluated using air monitoring.

The analysis of project emission performed using BAAQMD CEQA guidelines and presented in Attachment E of this initial study confirms that emissions are below significance criteria.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- d. Expose sensitive receptors to substantial pollutant concentrations.

Impact Analysis:

The Project Site is located approximately 300 feet inside the LLNL Site boundary, a one square mile secure facility, and is not located near any sensitive receptors such as residential areas, schools, playgrounds, health care facilities, day care centers or athletic fields. In addition, the project will not contribute substantially to pollutant concentrations where a sensitive receptors present.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

e. Create objectionable odors affecting a substantial number of people.

Impact Analysis:

The activity with the greatest potential for air quality impacts is the demolition of the building structure. B-419 is of cinder block construction with a concrete foundation. Demolition of the building structure is not anticipated to generate any objectionable odors. The building may be contaminated and the debris from the demolition will be managed and disposed of as hazardous waste. None of the known or suspected building contaminants have an objectionable odor.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

f. Result in human exposure to Naturally Occurring Asbestos (see also Geology and Soils, f.).

Impact Analysis:

The LLNL Site is approximately 80% developed, and there is no known record of naturally occurring asbestos having been encountered. The building structure does contain asbestos in pipe lagging and possibly in other areas and this will be identified and removed prior to demolition.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used: 5, 14

4. Biological Resources

Project Activities Likely to Create an Impact:

The following activities have the potential to impact biological resources:

- None.

Description of Baseline Environmental Conditions:

The area immediately around the Project Site does not provide habitat for biological resources. The larger LLNL Site includes several features that provide potential habitat for fish and wildlife, particularly Arroyo Seco and Arroyo Los Positas. Arroyo Seco cuts across the south west corner of the LLNL Site and Arroyo Los Positas runs along the north boundary and part way down the east boundary (refer to the figure found at Attachment C). There are several hundred meters between the Project Site and either of the water bodies mentioned.

The California Red-legged Frog (*Rana aurora draytonii*) has been sited in the vicinity of the LLNL Site. The frogs' habitat consists of small pools created when streams dry up and water is present within riparian areas, dominated by willow, sycamore, and cottonwood trees. Other habitat areas include agricultural areas with emergent short grasses and gravelly areas near roadside ditches and various oaks. The B-419 Facility is not landscaped and does not provide any of the types of habitat previously mentioned.

Analysis as to whether or not project activities would:

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

The B-419 Facility is not landscaped and does not provide any habitat that could be destroyed or altered as a result of the project. The Project Site is located several hundred meters from features on the LLNL Site that have been identified as potentially providing habitat.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impact Analysis:

As described in the Environmental Baseline above, the Project Site does not provide habitat and is not located in the proximity of environmental features that could be considered habitat. The Project Site is located in an industrial area of the LLNL Site that is primarily paved and void of trees and riparian areas.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact Analysis:

There are no federally protected wetlands in the vicinity of B-419.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Impact Analysis:

Neither the Project Site, nor the area immediately around the Project Site, provide temporary refuge for any migratory species. The Project Site is located in an industrial area that is primarily paved and void of trees and riparian areas.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- e. Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact Analysis:

Refer to the response to item d. above. No biological resources, including trees, will be lost or impacted by the closure of B-419.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact Analysis:

As previously stated in items a through e above, the B-419 area does not provide habitat for wildlife.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 7, 8, 10, 14

5. Cultural Resources

Project Activities Likely to Create an Impact:

The following activities have the potential to impact cultural resources:

- Building demolition and removal,
- Soil sampling,
- Possible soil excavation and removal.

Description of Baseline Environmental Conditions:

B-419 was assessed for potential historic significance by qualified historians in 2003. Based upon the results of the assessment, the National Nuclear Security Administration (NNSA), as the federal agency responsible for historic properties at LLNL, concluded that B-419 does not qualify for listing in the National Register of Historic Places within a local, State or national context. The State Historic Preservation Officer (SHPO) agreed with this conclusion [9].

B-419 is situated on a developed and partially paved site. No archaeological resources are known to occur at or in the vicinity of the Project Site, although there is some potential for unknown archaeological resources to be present below the level of previous ground disturbance at this location (estimated at greater than 10 feet). No paleontological resources are known to occur at or in the vicinity of the Project Site. The closest such resources found to date consist of mammoth and other late Pleistocene animal bones situated over ½ mile to the northeast at a depth of 20 – 35 feet below ground surface.

A search of the Native American sacred lands file by the Native American Heritage Commission (NAHC) (May 10, 2007) failed to identify the presence of Native American cultural resources in the immediate project area. A list of local Native American individuals/organization was provided and each will receive a letter from DTSC inviting them to participate in the public comment process.

Analysis as to whether or not project activities would:

- a. Cause a substantial adverse change in the significance of a historical resource as defined in California Code of Regulations, title 14, Chapter 3, Article 5, section 15064.5.

Impact Analysis:

It is not anticipated that the project activities would cause a substantial change in the significance of a historical resource. NNSA, in consultation with the SHPO, determined that B-419 does not qualify for the National Register of Historic Places within a local, State or national context. If, however, human remains, or any other archeological resources, are discovered during the closure then all work will be immediately halted. The appropriate authorities will

be contacted to assess the nature and significance of the find prior to the work recommencing. Refer also the response to item d.

Excavation for piping removal will occur in previously excavated areas (that is, this area was disturbed when the piping was installed); consequently, no impacts are anticipated. Excavation depth is not expected to exceed 6 feet below ground surface.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Cause a substantial adverse change in the significance of an archeological resource pursuant to California Code of Regulations, title 14, Chapter 3, Article 5, section 15064.5.

Impact Analysis:

No impact, refer to the description of baseline environmental conditions.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact Analysis:

No impact, refer to the description of baseline environmental conditions.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis:

No human remains are known to exist at the Project Site. In the event cultural resources are found in the course of the project activities, work will be suspended while a qualified archaeologist makes an assessment of the area and arrangements are made to preserve any resources that are located. No further disturbance should occur in the location where the remains are found and the County Coroner must be notified pursuant to Health and Safety Code section 7050.5. The coroner will determine disposition within 48 hours. If the remains are Native American, the coroner will be responsible for contacting the Native American Heritage Commission within 24 hours, and a Native American most likely descendent will be identified to make recommendation for the appropriate and dignified treatment of the remains (Public Resources Code, section 5097.98). The Native American Graves Protection and Repatriation Act provisions would also be followed for the disposition of historical resources found.

During the public notice period for this Initial Study, the Native American contacts supplied by the NAHC will receive notice of this project.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

References Used: 9, 11, 14, 20

6. Geology and Soils

Project Activities Likely to Create an Impact:

The following activities have the potential to impact geology and soils:

- Soil sampling,
- Possible soil excavation and removal.

Description of Baseline Environmental Conditions:

The Project Site is located inside the LLNL facility. In general, the LLNL Site is located on relatively flat terrain that slopes gently downward to the northwest. The soils in the Livermore Valley near the LLNL facility are relatively young (Quaternary to Plio-Pleistocene in age) and consist primarily of sediments deposited by streams in an alluvial fan setting. Although the LLNL facility is within 50 miles of many faults in the seismically active San Francisco Bay Area, two local faults with greater proximity have also been identified. The north Branch of the Las Positas fault is the closest to the hazardous waste facilities. This is approximately 1,600 feet southeast of B-419. The nearest potentially active fault is a strand of the Greenville Fault zone, approximately 7,900 feet away.

Analysis as to whether or not project activities would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - ❖ Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42).
 - ❖ Strong seismic ground shaking.
 - ❖ Seismic-related ground failure, including liquefaction.
 - ❖ Landslides.

Impact Analysis:

As noted, the nearest fault known is more than 1,600 feet away. The closure activities are of limited duration and involve no new construction and limited excavation. No significant effects are anticipated during demolition from a ground rupture or ground shaking. Since the project will result in the demolition of a building that has been determined to be seismically unsafe, the completion of the project will eliminate a hazard.

The nearest potentially active fault is a strand of the Greenville Fault zone, approximately 7,900 feet away. The closure activities are of limited duration and involve no new construction and limited excavation. The proposed project will not increase the human or environmental exposure to such a hazard as the project would result in the removal of structure deemed seismically unsafe.

No areas of landslide concern have been identified near the project. The Project Site is flat. No liquefaction potential has been identified in the area. The closure activities are of limited duration and involve no new construction and limited excavation (approximately 50 cubic yards). The proposed project will not increase the human or environmental exposure to such a hazard as the project would result in the removal of structures.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- Result in substantial soil erosion or the loss of topsoil.

Impact Analysis:

Due to the past disturbance and paving of the Site, a very limited potential for erosion does exist. The Project Site is flat. Best management practices during decontamination activities and grading will contain and control potential erosion and runoff. All exposed areas would be stabilized to minimize any soil erosion or loss of topsoil.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

Impact Analysis:

No unstable soil conditions have been identified in the area. No areas of landslide concern have been identified near the project. The Project Site is flat. No liquefaction potential has been identified in the area. The proposed project involves the sampling and removal of a structure and potentially limited excavation. No exposure of individuals to unstable soil hazards will occur during this limited duration project.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Impact Analysis:

No expansive soils have been identified. The surface soils are largely recent sedimentary sandy loams. More clayey soils found at depth are not expected to be encountered. The proposed project will not involve the placement of additional structures at the Project Site. The project involves the decontamination and demolition of existing structures.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of water.

Impact Analysis:

Implementation of the proposed project will not involve the use of septic tanks or alternative wastewater treatment disposal systems to handle wastewater generation.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- f. Be located in an area containing naturally occurring asbestos (see also Air Quality, f.).

Impact Analysis:

Naturally occurring asbestos is primarily encountered in, and immediately adjacent to, areas of ultramafic rocks. The Project Site is not located in or adjacent to an area of ultramafic rock. Also, the Project Site is approximately 80% developed, and there is not record of naturally occurring asbestos having been encountered.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

References Used: 14

7. Hazards and Hazardous Materials

Project Activities Likely to Create an Impact:

The following activities have the potential to involve hazards or hazardous materials:

- Asbestos removal and abatement,
- Building demolition and removal,
- Soil sampling,
- Possible soil excavation and removal,
- Transportation of building debris and soil to the point of disposal.

Description of Baseline Environmental Conditions:

The proposed project involves the formal closure of the B-419 Hazardous Waste Treatment Facility. Three (3) hazardous waste management units (HWMUs) formerly permitted under the authorization of RCRA interim status are present in B-419. The HWMUs have not been used since approximately 1989 and no hazardous waste is currently stored in the building. In addition, all equipment in the building that was used for hazardous waste treatment has been removed.

Partial closure of the building was completed in the past as follows:

- Decontamination and removal of equipment,
- Removal of some of the underground piping,
- Removal of the tanks from the tank vault.

Partial closure activities indicate that B-419 may be contaminated with hazardous constituent and potentially radionuclides. As such, debris generated from the demolition of the building structure will be managed as either low level radioactive waste (LLW) or mixed low level radioactive waste (MLLW). All LLW and MLLW will be managed at an authorized facility outside of California. A list of possible disposal locations is found in section 4.9 of the closure plan.

Analysis as to whether or not project activities would:

- a. Create a significant hazard to the public or the environment throughout the routine transport, use or disposal of hazardous materials.

Impact Analysis:

The transportation of the building debris is considered non-routine because it is a one time activity of limited duration.

Management of most of the liquid hazardous wastes will take place on the LLNL Site using existing facilities. These facilities are run by trained and experienced LLNL personnel according to procedures approved and permitted by DTSC. Contaminated soils and any other hazardous wastes generated that require offsite disposal will be transported by a licensed hazardous waste hauler to an approved permitted hazardous waste facility in accordance with regulations of the U.S. Environmental Protection Agency, the U.S. Department of Transportation, the Resource Conservation and Recovery Act (RCRA), and the State of California.

Wastes shipped offsite will be characterized to determine whether they are hazardous waste or solid waste under state and federal law. Wastes will be sampled, characterized, packaged, and shipped to an appropriate treatment or

disposal facility, consistent with the procedures currently in place for ongoing LLNL operations. These procedures are also included in the existing permit for hazardous waste management that requires compliance with state and federal law.

With respect to potential radioactivity levels the Concrete-Asphalt-Soil (CAS) samples will be compared to a new background study to be completed pursuant to MARSSIM guidance. If necessary, the potential risk or dose resulting from exposure to residual radionuclides in the subsurface will be evaluated consistent with LLNL protocol under Department of Energy standards. The standards for this decision are found in 10 Code of Federal Regulations 835 Appendix D and U. S. Department of Energy Order 5400.5. Potential for worker exposure and safety during closure will be addressed by the Health and Safety Plan. This references protocols for other radioactive operations at the LLNL Site and standards required of contractors doing work at the LLNL Site. No unique risks are anticipated from the closure activities and limited, if any, radioactivity exposure is foreseen.

Waste and debris removed during closure will be decontaminated to the extent feasible. Any such material that is above closure plan radioactivity levels will be shipped to an appropriately authorized/licensed off-site low level radioactive waste facility (likely to be the Energy Solutions facility located near Salt Lake City, Utah).

Any time hazardous waste is transported a hazard is present. Hazardous can be managed through the use of project controls. The following are some of the project controls that will be used when hazardous waste generated by LLNL closure activities is transported:

- Registered hazardous waste haulers will be used,
- Each load will be accompanied by a hazardous waste manifest,
- Transport vehicles will be placarded to indicate which hazardous wastes they contain,
- Transport routes will be screened for sensitive receptors,
- Transport vehicles will be covered to prevent material loss en-route.

A Health and Safety Plan (HSP) will be developed that describes the controls and procedures to be implemented that will minimize the incidents, injury, and health risks associated with the remedial activities conducted at the Project Site. The HSP will be prepared according to the requirements of 29 CFR 1910.120, and CCR Title 8 General Industrial Safety Order (GISO) 5192 for work at hazardous waste sites. The HSP will contain, at a minimum, the following elements:

- A hazard evaluation,
- Names of key personnel and the Project Site safety coordinator,
- A statement that personnel have completed training required by 29CFR 1910.120 and CCR Title 8 GISO 5192,
- Medical surveillance requirements and personal protective equipment to be used by Project Site personnel,
- The types and frequency of personal and area air monitoring, instrumentation and sampling techniques for monitoring of health and safety,
- Site control measures, including the designation of work zones (e.g., exclusion, contamination-reduction and support zones) and safe work procedures for work near structures or topographic breaks, slopes, wall, etc,
- Management of wastes and decontamination procedures for personnel and equipment,
- Noise and dust control procedures and action levels,
- Site transportation procedures,
- Contingency plans including telephone numbers and contact names, and,
- Location and routes to the nearest emergency and non-emergency medical care facilities.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Impact Analysis:

The closure area is within a secured facility with no access to the general public. The B-419 closure will also have access limited to LLNL employees involved in the closure process. All residuals from the closure process will be

contained within this area until they are properly packaged for management at other areas within the LLNL Facility or shipped off site in accordance with federal, state, and local regulations.

The types of materials involved in the decontamination and clean-up have a low potential to create significant upset or accident conditions. They are neither reactive nor explosive in the concentrations used. The residues and any contaminated soils generated will be managed in accordance with federal, state, and local regulations.

The proposed project activities are planned to be carried out in accordance with a detailed Closure Plan, which includes a health and safety plan with procedures to follow in case of emergency. Because there will continue to be hazardous waste and radioactive material handled in other parts of the facility, an extensive emergency response infrastructure will be available to support this plan as needed, including a Fire Safety Division and emergency dispatch center.

Compliance with the health and safety plan, as well as other well established LLNL Site-wide operating procedures, would ensure that the risk of upset would not result in significant impact to construction workers or other facility employees. Consequently, no impact to other lab employees and the general public is expected.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within one-quarter mile of an existing or proposed school.

Impact Analysis:

There are no existing or proposed schools within a one-quarter mile of the Project Site. The nearest school to the Project Site is Livermore Valley Unified School District: Arroyo Seco, located over one mile away. The nearest residence to the Project Site is located approximately 4,000 feet away.

All efforts will be taken to ensure that any hazardous waste that is identified is contained to prevent its release into the environment especially near any sensitive receptors. Given that the building is within the larger LLNL Site, the only likely exposure to sensitive receptors (if any) would be during off site transportation. The laboratory plans to manage this risk in two key ways; (1) waste will be fully characterized in place before it is removed, and (2) transportation routes will be screened for sensitive receptors.

Characterization of the waste, including analysis of the contaminant and the medium, allows for the appropriate transportation container and vehicle to be selected. The transportation container and vehicle will be selected to ensure that en-route releases do not occur. Also, by avoiding sensitive receptors (where possible), the impacts of a release are minimized should it occur.

The most direct route to the likely disposal facility is described in Attachment F.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to public or the environment.

Impact Analysis:

The Project Site has been identified on the Government Code Section 65962.5 list (Cortese List) of hazardous materials sites. The LLNL Site has an ongoing CERCLA site-wide groundwater contamination remediation program in progress. The project would not interfere with these ongoing activities. Decontamination, investigation and proper closure of the B-419 Facility would eliminate a potential source of contamination. Therefore, the project will not create a potential hazard to the public or the environment and will reduce hazards at the Project Site.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- e. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Impact Analysis:

The proposed project would not interfere with current emergency response plan or any emergency evacuation plans. The project activities are planned to be carried out in accordance with a detailed Closure Plan that includes a health and safety plan with procedures to follow in case of emergency. These plans are coordinated with the existing LLNL Site-wide emergency response plan or an emergency evacuation plan. Because there will continue to be hazardous waste and radioactive material handled in other parts of the facility, an extensive emergency response infrastructure will be available to support this plan as needed, including a Fire Safety Division and emergency dispatch center. Compliance with the health and safety plan, as well as other well established LLNL Site wide operating procedures, would ensure that there would be no interference with emergency response plans and no impact to lab employees and the general public.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 14

8. Hydrology and Water Quality

Project Activities Likely to Create an Impact:

The following activities have the potential to impact hydrology and water quality:

- Deep soil sampling,
- Groundwater sampling.

Description of Baseline Environmental Conditions:

There are no open water bodies in the immediate vicinity of the building. The first detectable water below B-419 is in a hydrostratigraphic unit known as Unit HSU 3A at a depth of approximately 100 feet below ground surface. The groundwater in the vicinity of B-419 is monitored as part of ongoing CERCLA site remediation efforts. Existing subsurface infrastructure is located immediately adjacent to the building, specifically, SIP-419-101 (HSU-3B, piezometer), SIP-419-202 (HSU 3A, piezometer), W-1414 (HSU 3A, monitoring), and W-2204 (HSU 2, vapor extraction). Data from the groundwater monitoring wells indicates that the groundwater in the vicinity of the Project Site is contaminated with chlorinated solvents at levels exceeding California Maximum Contaminant Levels. Although groundwater contamination is present in the project area it is not clear whether the operations conducted at B-419 contributed to the contamination. Information in the record suggests a release of chlorinated solvents may have occurred in the yard area immediately north of room 167. Specifically, PCE and TCE have been detected in soil vapor in the area [6]. In order to confirm whether a release occurred and ascertain whether it contributed to groundwater contamination a deep investigation will be conducted. Two borings will be installed north of room 167 and soil samples will be collected every five (5) feet down to the first encountered groundwater where a groundwater sample will be collected.

Analysis as to whether or not project activities would:

- a. Violate any water quality standards or waste discharge requirements.

Impact Analysis:

The completion of the project (i.e. the implementation of the Closure Plan) will not result in the discharge of any contaminants to groundwater. Any decontamination liquids that may be generated will be collected and tested and

will only be discharged to the sanitary sewer if they meet discharge requirements. The project will include an investigation to determine whether operation of the B-419 Facility contributed to groundwater contamination.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficient in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

Impact Analysis:

The foot print of B-419 is relatively small and infiltration of precipitation (rain) is not a significant source of groundwater. A dual-phase extraction system was installed in the vicinity of B-419 in late 2006. The lithology under the building is not conducive to the removal of large quantities of water; however, some water is expected to be removed that could impact the groundwater table in the area. There are no wells nearby that would be impacted by fluctuations in the level of groundwater.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

- c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off-site.

Impact Analysis:

The project will not permanently alter any drainage pattern and will not result in construction or grading in a drainage course. Any contaminated soils and residues will be carefully contained and will not result in siltation.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off-site.

Impact Analysis:

The project will not permanently alter any drainage pattern or result in increased surface runoff. The project does not involve new construction or grading in a drainage course. After demolition of the building, the Project Site will be regraded to the level of the surrounding land.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- e. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

Impact Analysis:

The project will not permanently alter any drainage pattern or result in increased surface runoff. The project will not result in new construction or add significant additional impervious surfaces. The current Project Site drainage system is designed to accommodate a 10-year storm, and a four-acre drainage retention basin exists within the facility. Any rinseate, residuals from decontamination or contaminated soils generated during the closure will be sampled and managed based on the test results. If material is determined to be non-hazardous and if it meets City of Livermore discharge criteria, it will be discharged into the sanitary sewer. Otherwise, it will be managed as hazardous waste and treated onsite or transported to a permitted hazardous waste facility for treatment.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☒ Less Than Significant Impact
- ☐ No Impact

- f. Otherwise substantially degrade water quality.

Impact Analysis:

No impact – refer to a through e.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- g. Place within a 100-flood hazard area structures which would impede or redirect flood flows.

Impact Analysis:

None of the developed areas of the LLNL Main Site are in a 100 year flood plain. No new construction is proposed.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- h. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

Impact Analysis:

Refer to the response to item g. The project is not located in a flood plain; consequently, no impact is anticipated.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

- i. Inundation by seiche, tsunami or mudflow.

Impact Analysis:

The proposed project area is not located in an area that would be subject to seiches, tsunamis, or mudflows.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

References Used: 6, 12, 13, 14

9. Land Use and Planning

Project Activities Likely to Create an Impact:

The following activities have the potential to impact land use and planning:

- None.

Description of Baseline Environmental Conditions:

The Project Site is located within the LLNL's 823-acre facility that is a highly secure federal operation which conducts research and development programs on nuclear weapons, magnetic fusion, energy, lasers, biomedical and environmental sciences, and applied energy technology. As a federal government property, LLNL is outside the jurisdiction of local planning agencies.

Analysis as to whether or not project activities would:

- a. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

Impact Analysis:

The proposed project would not conflict with existing land use designations or require a conditional use permit from the City of Livermore. As a government property, LLNL is outside the jurisdiction of local planning agencies; however, the facility is consistent with the existing land use plans and zoning policies of the City of Livermore and the County of Alameda.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Conflict with any applicable habitat conservation plan or natural community conservation plan.

Impact Analysis:

The proposed project does not have the potential to impact biological resources or habitat areas, as analyzed under section 4, Biology, above because it is mostly paved and does not provide habitat value.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 9

10. Mineral Resources

Project Activities Likely to Create an Impact:

The following activities have the potential to impact mineral resources:

- None.

Description of Baseline Environmental Conditions:

The Project Site is located within the limits of the 823-acre LLNL Site. The LLNL Site is approximately 80% developed. The completion of the project will involve limited disturbance of soils. No known mineral resources are located within the boundaries of the proposed Project Site.

Analysis as to whether or not project activities would:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

Impact Analysis:

No known mineral resources are located within the boundaries of the Project Site. Activities at the Project Site would involve minor amounts of excavation (approximately 50 cubic yards). These excavation activities would likely occur in previously disturbed soils. The project would not result in the loss of availability of any mineral resources that would be of future value.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Impact Analysis:

No known mineral resources are located within the boundaries of the Project Site.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 14, 17

11. Noise

Project Activities Likely to Create an Impact:

The following activities have the potential to create noise:

- Construction equipment used for building demolition and removal,
- Drill rig used for soil sampling,
- Excavator used for possible soil excavation and removal,
- General increased vehicular traffic.

Description of Baseline Environmental Conditions:

There are no sensitive noise receptors in the close vicinity of the project; the distance to the laboratory boundary is 300 feet and the nearest school is over one mile away. The project is within an industrial portion of LLNL where the waste water treatment and warehouse type storage equipment and operations have occurred for several years.

Analysis as to whether or not project activities would:

- a. Expose persons to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Impact Analysis:

There are no sensitive noise receptors in the close vicinity of the project; the distance to the laboratory boundary is 300 feet, and the nearest school is over one mile away. No offsite receptors would be significantly impacted due to their distance from the unit and the open space buffers available. The activity most likely to generate noise is building demolition which will be short lived (approximately four weeks). Work will only be conducted during normal hours (8 am to 5 pm).

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- b. Expose persons to or generate excessive groundbourne vibration or groundbourne noise levels.

Impact Analysis:

See a above. The activity most likely to generate vibration or noise is building demolition which will be short lived (approximately four weeks).

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- c. A substantial permanent increase in ambient noise levels in the vicinity above levels existing without the project.

Impact Analysis:

There will be no permanent increase in noise levels. At the completion of the closure project, the building will have been removed and it is likely that the Project Site will be used for additional parking.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Impact Analysis:

There will be times when noise levels will rise depending on which phase of the project is being completed. The activities expected to generate the highest noise levels are demolition of the structure and the concrete foundation. Hearing protection will be worn by contractors and other lab staff working in the area of the building at these times. Off site receptors are over one mile away and are not expected to be affected by the project.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

References Used: 14

12. Population and Housing

Project Activities Likely to Create an Impact:

The following activities have the potential to impact population and housing:

- None.

Description of Baseline Environmental Conditions:

The Project Site is located within an industrial area of the Lawrence Livermore National Laboratory.

Analysis as to whether or not project activities would:

- a. Induce substantial population growth in area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

Impact Analysis:

No new infrastructure, commercial buildings or housing will be built in conjunction with project implementation. The proposed project would involve the decontamination and removal of existing facilities. No new construction or expansion of LLNL facilities is proposed. B-419 will be removed. The proposed project would not directly or indirectly induce substantial population growth in the area because it will only last approximately 21 months to complete and will employ limited staff.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

Impact Analysis:

No housing will be demolished or replaced as a result of the proposed project, which consists of the decontamination and removal of industrial equipment and industrial buildings.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis:

The project will not displace anyone.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 10, 14

13. Public Services

Project Activities Likely to Create an Impact:

The following activities have the potential to impact public services:

- None.

Description of Baseline Environmental Conditions:

The Project Site is located within the boundaries of the Lawrence Livermore national Laboratory facility. The facility provides its own primary fire and police services.

Analysis as to whether or not project activities would:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:

- ❖ Fire protection
- ❖ Police protection
- ❖ Schools
- ❖ Parks
- ❖ Other public facilities

Impact Analysis:

The proposed project consists of the removal of equipment, structures, paving and perhaps some contaminated soil from the LLNL Site. The project is of relatively short duration (21-months), does not include new construction and will not generate new population through employment that would create a demand for schools or parks in the area. There will be no change in the need for public services because the project 1) will be accomplished in less than two years, 2) will not create any special demands on offsite facilities or services and 3) will not expand the long term activities of the LLNL in a manner that results in the need for new housing, new regional population or new employment. The facility provides its own primary fire and police services.

Conclusion:

- ☐ Potentially Significant Impact
- ☐ Potentially Significant Unless Mitigated
- ☐ Less Than Significant Impact
- ☒ No Impact

References Used: 14

14. Recreation

Project Activities Likely to Create an Impact:

The following activities have the potential to impact recreation:

- None.

Description of Baseline Environmental Conditions:

The proposed project consists of the removal of equipment and structures from the LLNL facility, which will not have any impact on recreational activities, as no recreational activities take place in the project area.

Analysis as to whether or not project activities would:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

Impact Analysis:

The proposed project would involve the removal of existing structures and associated equipment, along with the decontamination and clean-up of the area. The project would not expand the long term activities of the LLNL in a

manner that results in the need for new housing, new regional population or new employment. The proposed project will not increase demand for neighborhood or regional parks. No offsite recreation activities will be affected by the onsite closure activities because control measures will limit any effects to well within the LLNL complex. No impact to recreation will occur.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Include recreational facilities or require construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact Analysis:

No recreational activities will be included or required by the proposed project.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 14

15. Transportation and Traffic

Project Activities Likely to Create an Impact:

The following activities have the potential to impact transportation and traffic:

- Transportation of building debris and excavated soil to the point of disposal,
- General increased vehicular traffic.

Description of Baseline Environmental Conditions:

The existing laboratory complex has ongoing truck traffic to support the research and occupational needs of several thousand employees. It is served by arterial streets that are approved truck routes. These routes provide access to Interstate 580 that provides modern freeway access to the Central Valley, the San Francisco Bay Area and the interstate freeway network. Hazardous and radioactive materials and wastes are routinely shipped and received during ongoing laboratory operations, consistent with state and federal regulations.

Analysis as to whether or not project activities would:

- a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

Impact Analysis:

The project will generate an increase in traffic. However, the traffic volumes at the LLNL Site are already high (approx 10,000 employees) and the additional traffic will be insignificant. A minor increase in street traffic is anticipated during the demolition and decontamination phases. Transportation of building debris is anticipated to generate 52 truck trips and transportation of soil will generate up to three truck trips over the 21-month implementation period. This short time event will not result in significant traffic impact to arterials (East Avenue and Vasco Road) or Interstate 580. Debris and contaminated soil trucks will be limited to no more than 10 trucks per day during the closure process. Trucks transporting closure derived waste will be staged to limit impacts during commuter traffic rush hours (6 - 9 a.m. and 4 - 7 p.m.). The most direct route to the likely disposal facility is described in Attachment F.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- b. Exceed, either individually or cumulatively, a level of service standard established by the country congestion management agency for designated roads or highway.

Impact Analysis:

As described above, controls on traffic during the short term demolition and decontamination phases will assure that they do not have a significant impact on the level of service on nearby roads.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Impact Analysis:

No new construction is proposed. Demolition and decontamination activities will be confined within the existing work areas and will not interfere with access to existing roads. Adequate room exists to maneuver equipment during decontamination and demolition without causing onsite traffic hazards. No change in offsite roads or interference with their intersections will occur. Existing truck routes will be used for transportation of offsite disposal shipments.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. Result in inadequate emergency access.

Impact Analysis:

With the exception of trucks for removal of debris or contaminated soil, the proposed project takes place entirely on the LLNL facility. No significant new risks from the project have been identified that would increase the need for emergency access. Operations would not block any internal LLNL emergency access roads. Traffic generated during closure would be staged to avoid congestion that might interfere with emergency service vehicle access.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- e. Result in inadequate parking capacity.

Impact Analysis:

The proposed project would result in a temporary increase in worker and equipment parking usage during the decontamination and demolition, but this will not be significant because of its minimal scale and short duration.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☒ Less Than Significant Impact
☐ No Impact

- f. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Impact Analysis:

All activities occurring onsite would be within the industrial B-419 area and would not affect employee transit or parking. The short term offsite transportation of wastes and debris would not affect alternative transportation needs, policies, or programs.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 14, 19

16. Utilities and Service Systems

Project Activities Likely to Create an Impact:

The following activities have the potential to impact utilities and service systems:

- Building demolition resulting in reduced need for utilities on the Project Site.

Description of Baseline Environmental Conditions:

The Project Site is located within the LLNL industrial facility. Existing service include water provided by the Hetch Hetchy aqueduct system, both gas and electric power are provided by Pacific Gas and Electric. Sewer services are provided by the City of Livermore.

Analysis as to whether or not project activities would:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

Impact Analysis:

The proposed project would involve the decontamination and removal of equipment and structures at the Project Site. A slight temporary increase in the amount of water use and wastewater generation would occur from the project. However, this small short term water demand would not affect the capacity of the provider. Similarly, discharges would not impact any offsite wastewater treatment capacity or change treatment requirements. Any discharge water would be required to meet existing pre-treatment and discharge standards of the City of Livermore.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

The proposed project would involve the decontamination and removal of equipment and structures at the Project Site. A slight temporary increase in the amount of water use and wastewater discharge would occur during project implementation. However this volume would not affect the capacity or existing operating standards for on-site or off-site waste water treatment facility.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Impact Analysis:

No new construction will occur. Therefore, there will be no affect on the existing adequate storm drainage system capacity at LLNL. Any storm water from the project work areas would be contained and tested for potential contamination.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed.

Impact Analysis:

No new construction will occur. Limited water use would be required over a short duration for decontamination activities but this will not affect any entitlements.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- e. Result in determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

Impact Analysis:

No new construction will occur. A slight temporary increase in the amount of wastewater would occur due to the project implementation. However, existing entitlements and resources are adequate to handle this usage. There will be no need for increased long term offsite wastewater treatment capacity.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

- f. Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs.

Impact Analysis:

The proposed project consists of the removal of equipment and structures from service on the LLNL Site. There will be no change in the need for public services because the project: 1) will be accomplished in less than two years, 2) will not create any special demands on offsite facilities or services, and 3) will not expand the long term activities of the LLNL in a manner that results in the need for new housing, new regional population or new employment.

Demolition of the building structure, foundation and vault is expected to generate approximately 1,114 cubic yards of debris. Potential soil removal from the Project Site has been estimated at approximately 50 cubic yards.

In addition to building debris, rinsate from decontamination and waste Personal Protective Equipment (PPE) will be generated. The closure is projected to generate approximately 150 cubic feet of disposable rubber gloves, boots, and other personnel protective gear; 50 cubic feet of miscellaneous rags, paper, and disposable sampling materials; and 1,500 gallons of spent decontamination liquids. These materials will be either treated on-site or containerized for off-site disposal.

Wastes shipped offsite will be characterized to determine whether they are hazardous waste or solid waste under state and federal law. Wastes will be sampled, characterized, packaged, and shipped to an appropriate treatment or disposal facility consistent with the procedures currently in place for ongoing LLNL operations. These procedures are also included in the existing permit for hazardous waste management that requires compliance with state and federal law.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

g. Comply with federal, state, and local statutes and regulations related to solid waste.

Impact Analysis:

LLNL has decided to characterize the debris resulting from the demolition of the entire B-419 structure as low level radioactive waste (LLW). Debris from the demolition of select areas of the building will be classified as mixed low level radioactive waste (MLLW) because hazardous constituents, such as mercury, are also present. The LLW and MLLW will be transported to an appropriately licensed facility outside of California for disposal. A list of possible destinations for the waste generated during the closure is located in section 4.9, page 12, of the Closure Plan. The debris will be transported to a facility licensed to accept LLW and MLLW for disposal.

The project will not generate an ongoing waste stream. The waste that will be generated is a one time event related to closure of a former hazardous waste management facility.

Conclusion:

- ☐ Potentially Significant Impact
☐ Potentially Significant Unless Mitigated
☐ Less Than Significant Impact
☒ No Impact

References Used: 8, 14

Mandatory Findings of Significance

Based on evidence provided in this Initial Study, DTSC makes the following findings:

- a. The project ☐ has ☒ does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory.
- b. The project ☐ has ☒ does not have impacts that are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
- c. The project ☐ has ☒ does not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

Determination of Appropriate Environmental Document:

Based on evidence provided in this Initial Study, DTSC makes the following determination:

☒ The proposed project COULD NOT HAVE a significant effect on the environment. A **Negative Declaration** will be prepared.

☐ The proposed project COULD HAVE a significant effect on the environment. However, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **Mitigated Negative Declaration** will be prepared.

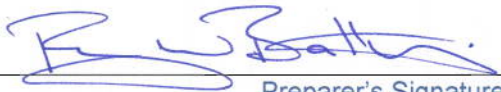
☐ The proposed project MAY HAVE a significant effect on the environment. An **Environmental Impact Report** is required.

☐ The proposed project MAY HAVE a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **Environmental Impact Report** is required, but it must analyze only the effects that remain to be addressed.

☐ The proposed project COULD HAVE a significant effect on the environment. However, all potentially significant effects (a) have been analyzed adequately in an earlier Environmental Impact Report or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier Environmental Impact Report or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project. Therefore, nothing further is required.

Certification:

I hereby certify that the statements furnished above and in the attached exhibits, present the data and information required for this initial study evaluation to the best of my ability and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.



Preparer's Signature

6/2/09.
Date

Mr. Ryan Batty

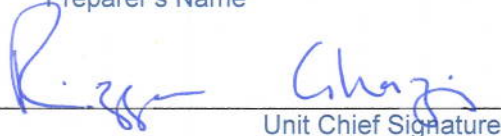
Preparer's Name

Hazardous Substances Engineer

Preparer's Title

(916) 255-6699

Phone #



Unit Chief Signature

6/2/09
Date

Mr. Rizgar Ghazi, P.E.

Branch or Unit Chief Name

Unit Chief, Brownfields and Environmental
Restoration Program

Unit Chief Title

(916) 255-6665

Phone #

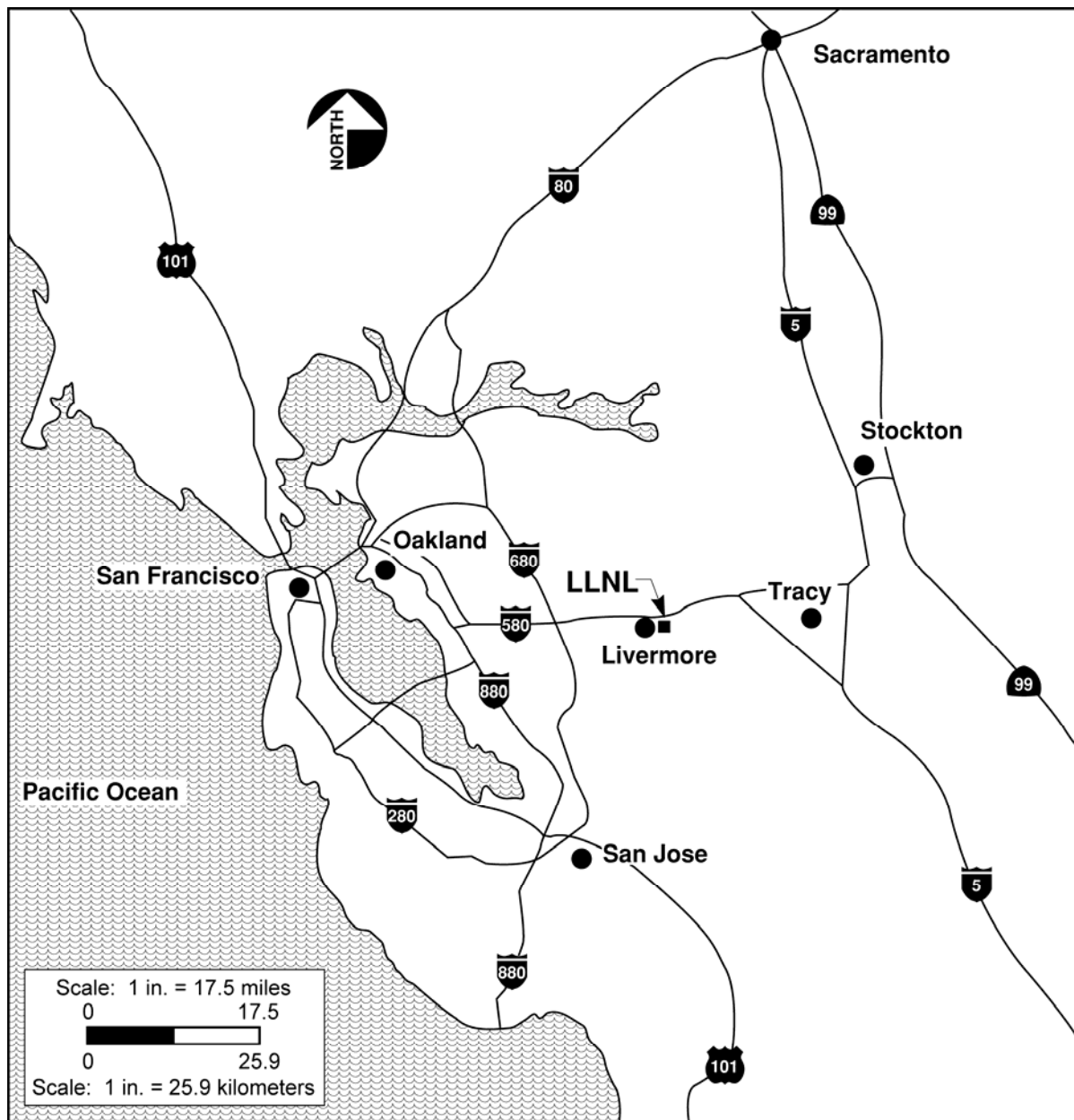
ATTACHMENT A

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ATTACHMENT B

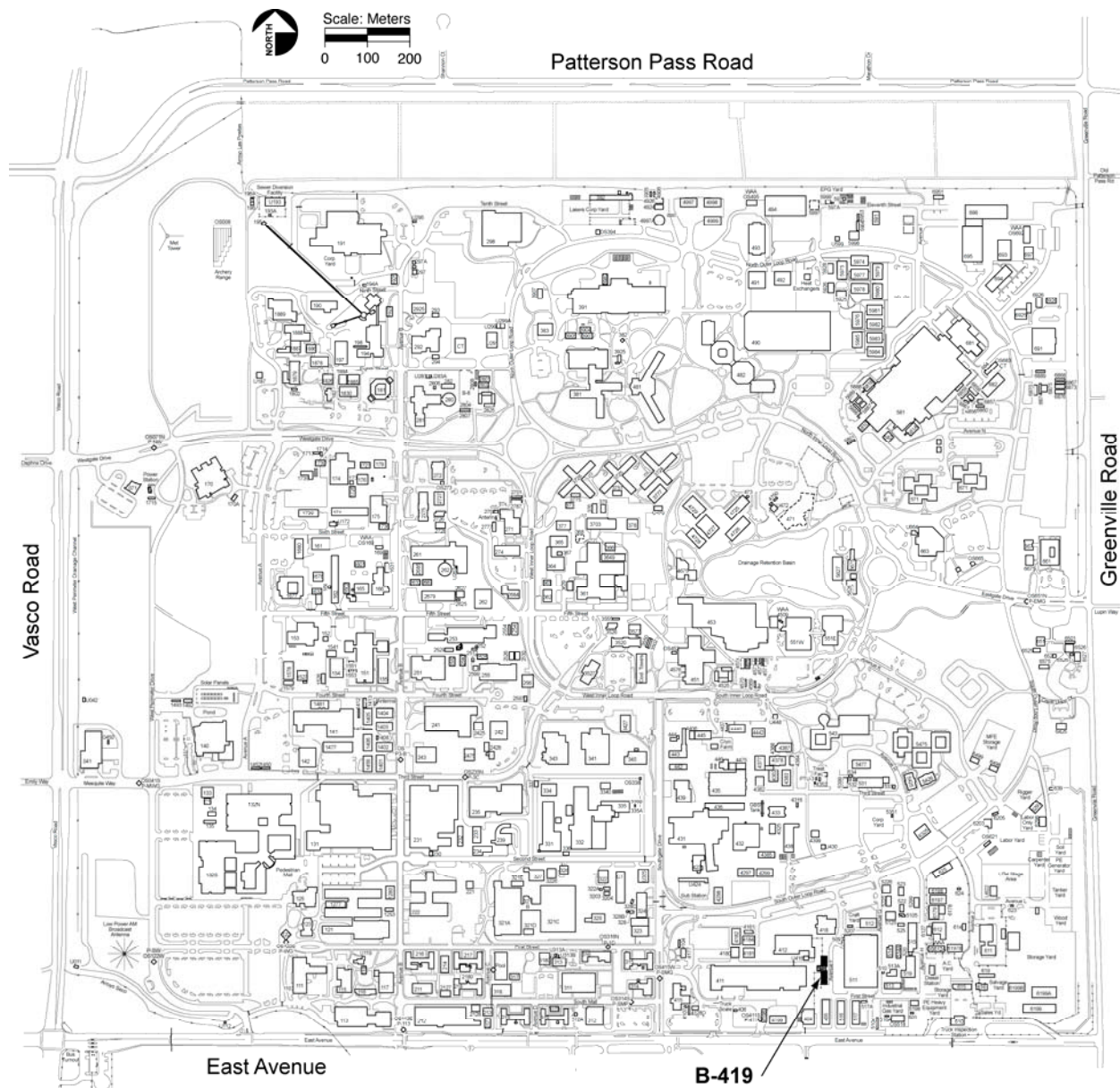
REGIONAL MAP



Regional map of the San Francisco Bay Area identifying the location of the Lawrence Livermore national Laboratory in the city of Livermore.

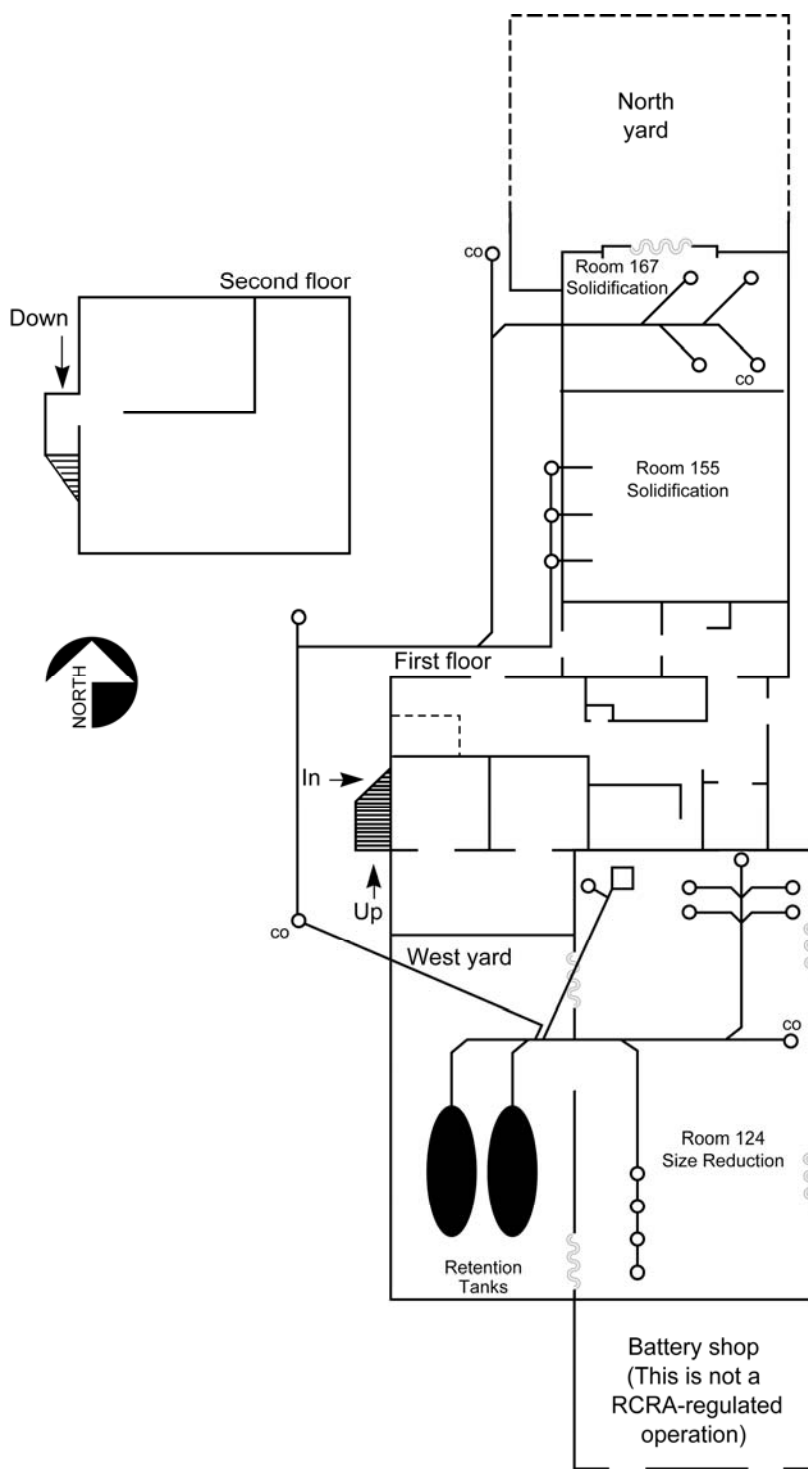
ATTACHMENT C

SITE MAP



Detail map of the Lawrence Livermore National Laboratory identifying the location of Building 419.

ATTACHMENT D
BUILDING FLOOR PLAN



Floor plan of Building 419 identifying the rooms of the building and the layout of the underground piping (some of the underground piping has already been removed - refer to the draft Closure Plan).

ATTACHMENT E

AIR QUALITY ANALYSIS SUMMARY

Total project emissions

Total vehicle mileage (car or small pick-up)	9180 miles
Total operating time (large diesel equipment)	800 hrs
Total mileage (large truck)	66393 miles

	NOx	ROG	SOx	CO	PM10
Total vehicle mile (car or small pick-up)	19.63464	0.015586	0.607257	93.72	8.906436
Total operating time (large diesel equipment)	830.844	179.928	89.964	2704.212	42.336
Total miles (large truck)	284.0093	105.4055	8.783794	1355.632	128.829
Demolition (building structure)					66.024
Demolition (building foundation)					3.3012
Demolition (tank vault)					0.09072
Excavation (contaminated soil)					1.412293
Total lbs/project	1134.488	285.3491	99.35505	4153.564	250.8996

Average annual project emissions

	NOx	ROG	SOx	CO	PM10
Total vehicle mileage (car or small pick-up)	34.36063	0.027275	1.0627	164.01	15.58626
Total operating time (large diesel equipment)	1453.977	314.874	157.437	4732.371	74.088
Total mileage (large truck)	497.0163	184.4597	15.37164	2372.356	225.4507
Demolition					121.4779
Excavation					2.471513
Total lbs/project	1985.354	499.3609	173.8713	7268.737	439.0743

Peak weekly project emissions (BAAQMD Only)

Occur during the building demolition phase

Total vehicle miles (car or small pick-up)	300 miles
Total operating time (large diesel equipment)	80 hrs
Total miles (large truck)	166.7 miles

	NOx	ROG	SOx	CO	PM10
Vehicle mileage (car or small pick-up)	0.641655	0.244755	0.019845	3.062745	0.29106
Operating time (large diesel equipment)	83.0844	17.9928	8.9964	270.4212	4.2336
Mileage (large truck)	0.71295	0.27195	0.02205	3.40305	0.3234
Demolition					11.004
Total lbs/week	84.4	18.5	9.0	276.9	15.9

The ROG, Nox and PM10 emissions are clearly lower than the threshold of significance values as quoted in the BAAQMD CEQA Guidelines (see below).

BAAQMD CEQA Guidelines, Page 16, Table 3 - thresholds of significance

Pollutant	ton/yr	lb/day	kg/day
ROG	15	80	36
NOx	15	80	36
PM10	15	80	36

Summary of the air quality analysis calculation performed for this project.

ATTACHMENT F

HAZARDOUS WASTE TRANSPORTATION ROUTES

The following attachment includes information on the most direct route from the Site to the likely disposal facility. For additional information on the transportation of hazardous materials, including low level radioactive waste, refer to reference [19].

Energy Solutions**605 N 5600 W****Salt Lake City, UT 84116****Miles**

Exit LLNL on East Avenue	
West on East Avenue to Vasco Road	< 1
North on Vasco Road to Interstate 580 (I-580)	2.0
East on I-580 to Interstate 205 (I-205)	8.7
Continue on I-205 to Interstate 5 (I-5)	14.5
North on I-5 to Interstate 80 (I-80)	62.8
East on I-80 to the State of Nevada	
Through Nevada on I-80	
Exit 113 on I-80 in Utah	641.4 (total on I-80)
Turn onto S 5600 W	1.1
End at 605 N	
Total	728.5 miles